

Exhibit 12

PUBLIC - REDACTED VERSION

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27 and *Meta Platforms Technologies, LLC*

28 *[Additional counsel listed on signature page]*

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**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
OAKLAND DIVISION**

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GENTEX CORPORATION and INDIGO
TECHNOLOGIES, LLC,

Plaintiffs,

THALES VISIONIX, INC.,

Involuntary Plaintiff,

v.

META PLATFORMS, INC. and META
PLATFORMS TECHNOLOGIES, LLC,

Defendants.

Case No. 4:22-cv-03892-YGR

**DEFENDANTS META PLATFORMS,
INC. AND META PLATFORMS
TECHNOLOGIES, LLC'S AMENDED
ANSWER**

Judge: Hon. Yvonne Gonzalez Rogers

PUBLIC - REDACTED VERSION

1 Defendants Meta Platforms, Inc. (“Meta”) and Meta Platforms Technologies, LLC (“Meta
 2 Technologies”) (collectively, “Defendants”) hereby amends its answer to the Complaint for Patent
 3 Infringement (“Complaint”) (ECF No. 1) of Plaintiffs Gentex Corporation (“Gentex”) and Indigo
 4 Technologies, LLC (“Indigo”) (collectively, “Plaintiffs”) and Involuntary Plaintiff Thales Visionix,
 5 Inc. (“Thales” or “Involuntary Plaintiff”) as follows. Each numbered paragraph in Defendants’
 6 Answer to Plaintiffs’ Complaint for Patent Infringement (“Answer”) below corresponds directly to
 7 each numbered paragraph in the Complaint. To the extent not expressly admitted herein, Defendants
 8 deny all allegations recited in the Complaint.

9 **NATURE OF THE ACTION**

10 1. Defendants admit that Plaintiffs purport to bring an action for infringement under the
 11 patent laws of the United States, 35 U.S.C. § 101 *et seq.* Except as expressly admitted herein,
 12 Defendants deny the remaining allegations of paragraph 1.

13 2. Defendants are without knowledge or information sufficient to either admit or deny the
 14 allegations of paragraph 2, and therefore deny them.

15 3. Denied.

16 **THE PARTIES**

17 4. Defendants are without knowledge or information sufficient to either admit or deny the
 18 allegations of paragraph 4, and therefore deny them.

19 5. Defendants are without knowledge or information sufficient to either admit or deny the
 20 allegations of paragraph 5, and therefore deny them.

21 6. Defendants are without knowledge or information sufficient to either admit or deny the
 22 allegations of paragraph 6, and therefore deny them.

23 7. Defendants admit that Facebook is a corporation organized under the laws of the State
 24 of Delaware with a principal place of business located at 1601 Willow Road, Menlo Park, CA 94025.
 25 Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 7.

26 8. Defendants admit that Facebook Technologies was a limited liability company
 27 organized under the laws of the State of Delaware with a principal place of business at 1601 Willow
 28

1 Road, Menlo Park, CA 94025. Defendants admit that Facebook Technologies was a wholly-owned
 2 subsidiary of Facebook.

3 **JURISDICTION AND VENUE**

4 9. Defendants admit that Plaintiffs purport to bring an action under the Patent Act, 35
 5 U.S.C. § 101 *et seq.*, and assert that the Court has subject matter jurisdiction pursuant to 28 U.S.C. §§
 6 1331 and 1338(a). Except as expressly admitted herein, Defendants deny the remaining allegations of
 7 paragraph 9.

8 10. Defendants admit that the quoted language in paragraph 10 appears in Tex. Civ. Prac.
 9 & Rem. Code § 17.042(3). Defendants do not dispute that this Court has personal jurisdiction over
 10 Defendants solely with respect to and only for the purposes of this action. Except as expressly
 11 admitted herein, Defendants deny the remaining allegations of paragraph 10.

12 11. Defendants do not dispute that this Court has personal jurisdiction over Meta solely
 13 with respect to and only for the purposes of this action. Defendants specifically deny that they have
 14 committed any acts of infringement. Except as expressly admitted herein, Defendants deny the
 15 remaining allegations of paragraph 11.

16 12. Defendants do not dispute that this Court has personal jurisdiction over Meta solely
 17 with respect to and only for the purposes of this action. Defendants admit that Facebook had office
 18 locations in Austin, Texas and Dallas, Texas, but deny that such offices are relevant for determining
 19 whether this forum is convenient for this action. Except as expressly admitted herein, Defendants
 20 deny the remaining allegations of paragraph 12.

21 13. Defendants admit that Plaintiffs purport to characterize an online article dated
 22 September 4, 2019, titled “*First look: Facebook headcount swells as social media giant opens new*
 23 *Austin office.*” The online article speaks for itself. Defendants admit that Facebook maintained a
 24 presence at 607 West Third Street, Austin, Texas 78701; at 300 West 6th Street, Austin, TX 78701; at
 25 11601 Alterra Parkway, Austin, Texas 78758; and at 13011 McCallen Pass, Austin, Texas 78753.
 26 Defendants deny that such presence is relevant for determining whether this forum is convenient for
 27 this action. Except as expressly admitted herein, Defendants deny the remaining allegations of
 28 paragraph 13.

1 14. Defendants admit that Plaintiffs purport to characterize an online article dated August
 2 1, 2020, titled “*Facebook still hiring in Austin; No plans to give up splashy office space around town, top local exec says*,” an online article dated September 6, 2018, titled “*Sources: Facebook to eat up big chunk of Austin’s ‘second downtown,’*” and an online article dated December 4, 2020, titled “*Sources: Facebook wants 1M more square feet downtown.*” The online articles speak for themselves. Defendants admit that Facebook maintained offices in Austin, Texas, but deny that such offices are relevant for determining whether this forum is convenient for this action. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 14.

9 15. Defendants admit that Plaintiffs purport to quote from an online article dated August
 10 1, 2020, titled “*Facebook still hiring in Austin; No plans to give up splashy office space around town, top local exec says*.” The online article speaks for itself. Defendants admit that Plaintiffs appear to
 11 reference purported job listings at a prior Facebook Careers website,
 12 <https://www.facebook.com/careers>, but deny Plaintiffs’ allegations with respect to said purported job
 13 listings. Defendants deny that Meta engineers in Austin work on the accused functionality at issue in
 14 this litigation. Except as expressly admitted herein, Defendants deny the remaining allegations of
 15 paragraph 15.

17 16. Defendants admit that Plaintiffs appear to quote from two job listings at a prior
 18 Facebook Careers website <https://www.facebook.com/careers> for a Digital Design Engineer and
 19 Privacy Product Strategist, Facebook Reality Labs (FRL). The job listings posted online speak for
 20 themselves. Defendants deny that Facebook engineers in Austin work on the accused functionality at
 21 issue in this litigation. Except as expressly admitted herein, Defendants deny the remaining allegations
 22 of paragraph 16.

23 17. Defendants admit that Plaintiffs appear to reference a public webpage purportedly
 24 identifying H1B base salaries of certain positions at Facebook. The webpage speaks for itself. Except
 25 as expressly admitted herein, Defendants deny the remaining allegations of paragraph 17.

26 18. Defendants admit that they conduct business through certain websites that are
 27 accessible in this District, but deny that this forum is convenient for this action. Except as expressly
 28 admitted herein, Defendants deny the remaining allegations of paragraph 18.

1 19. Defendants do not dispute that venue is proper in this District pursuant to 28 U.S.C. §
 2 1400(b) solely with respect to and only for the purposes of this action, but deny that this forum is
 3 convenient. Except as expressly admitted herein, Defendants deny the remaining allegations of
 4 paragraph 19, and specifically deny that they have committed any acts of infringement.

5 20. Defendants do not dispute that this Court has personal jurisdiction over Meta
 6 Technologies solely with respect to and only for the purposes of this action. Except as expressly
 7 admitted herein, Defendants deny the remaining allegations of paragraph 20.

8 21. Defendants do not dispute that this Court has personal jurisdiction over Meta
 9 Technologies solely with respect to and only for the purposes of this action. Except as expressly
 10 admitted herein, Defendants deny the remaining allegations of paragraph 21, and specifically deny
 11 that they have committed any acts of infringement.

12 22. Defendants admit that they conduct business through certain websites that are made
 13 accessible in this District, but deny that the Western District of Texas was convenient for this action.
 14 Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 22, and
 15 specifically deny that they have committed any acts of infringement.

16 23. Defendants admit that Facebook Technologies was a wholly-owned subsidiary of
 17 Facebook. Defendants admit that certain products were available for purchase at
 18 <https://www.oculus.com/>. Except as expressly admitted herein, Defendants deny the remaining
 19 allegations of paragraph 23, and specifically that they have committed any acts of infringement.

20 24. Defendants admit that Facebook's Form 10-K and Form 10-Q filings with the
 21 Securities and Exchange Commission did not separately report revenue from Facebook Technologies.
 22 Defendants admit that Plaintiffs purport to characterize Facebook's 2020 Annual Report (Form 10-
 23 K), which speaks for itself, as reporting \$1.796 billion of "Other revenue." Defendants admit that
 24 Plaintiffs purport to characterize an online article dated January 27, 2021, titled "*Zuckerberg: Quest 2*
 25 '*on track to be first mainstream VR headset', Next Headset Confirmed.*" The online article speaks for
 26 itself. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph
 27 24.
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25. Defendants admit that Facebook Technologies was a wholly owned subsidiary of Facebook. Plaintiffs purport to characterize an online article dated August 18, 2020, titled “*A single way to log into Oculus and unlock social features*” and an online article dated January 31, 2021, titled “*Everything you need to know: Facebook login, user data and privacy on Oculus headsets*.” The online articles speak for themselves. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 25.

26. Defendants do not dispute that venue is proper in this District pursuant to 28 U.S.C. § 1400(b) solely with respect to and only for the purposes of this action, but Defendants deny that the Western District of Texas was convenient for this action. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 26.

FACTUAL BACKGROUND

I. INTERSENSE AND ERIC FOXLIN'S INVENTIONS IN SOURCELESS VIRTUAL REALITY

27. Defendants are without knowledge or information sufficient to either admit or deny the allegations of paragraph 27, and therefore deny them.

28. Defendants are without knowledge or information sufficient to either admit or deny the allegations of paragraph 28, and therefore deny them.

29. Defendants admit that Plaintiffs purport to reference an online article dated November 21, 2011, titled "*Gentex Corporation Announces Acquisition of Intersense Incorporated.*" The online article speaks for itself. Defendants are without knowledge or information sufficient to either admit or deny any remaining allegations of paragraph 29, and therefore deny them.

30. Defendants are without knowledge or information sufficient to either admit or deny the allegations of paragraph 30, and therefore deny them.

II. THE ASSERTED PATENTS

31. Defendants admit that Exhibit A to the Complaint purports to be a copy of U.S. Patent No. 6,757,068 (“’068 patent”). Defendants admit that, on its face, the ’068 patent is entitled “Self-Referenced Tracking.” Defendants deny that the ’068 patent is valid and enforceable. Defendants are

1 without knowledge or information sufficient to either admit or deny the remaining allegations of
 2 paragraph 31, and therefore deny them.

3 32. Defendants admit Plaintiffs purport to characterize the '068 patent, which speaks for
 4 itself. Defendants deny that the claims of the '068 patent are directed to patent-eligible inventions.
 5 Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 32.

6 33. Defendants admit that Exhibit B to the Complaint purports to be a copy of U.S. Patent
 7 No. 7,301,648 ("'648 patent"). Defendants admit that, on its face, the '648 patent is entitled "Self-
 8 Referenced Tracking." Defendants deny that the '648 patent is valid and enforceable. Defendants are
 9 without knowledge or information sufficient to either admit or deny the remaining allegations of
 10 paragraph 33, and therefore deny them.

11 34. Defendants admit Plaintiffs purport to characterize the '648 patent, which speaks for
 12 itself. Defendants deny that the claims of the '648 patent are directed to patent-eligible inventions.
 13 Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 34.

14 35. Defendants admit that Exhibit C to the Complaint purports to be a copy of U.S. Patent
 15 No. 8,224,024 ("'024 patent"). Defendants admit that, on its face, the '024 patent is entitled "Tracking
 16 Objects with Markers." Defendants deny that the '024 patent is valid and enforceable. Defendants
 17 are without knowledge or information sufficient to either admit or deny the remaining allegations of
 18 paragraph 35, and therefore deny them.

19 36. Defendants admit Plaintiffs purport to characterize the '024 patent, which speaks for
 20 itself. Defendants deny that the claims of the '024 patent are directed to patent-eligible inventions.
 21 Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 36.

22 37. Defendants admit that Exhibit D to the Complaint purports to be a copy of U.S. Patent
 23 No. 6,922,632 ("'632 patent"). Defendants admit that, on its face, the '632 patent is entitled "Tracking,
 24 Auto-Calibration, and Map-Building System." Defendants deny that the '632 patent is valid and
 25 enforceable. Defendants are without knowledge or information sufficient to either admit or deny the
 26 remaining allegations of paragraph 37, and therefore deny them.

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1 38. Defendants admit Plaintiffs purport to characterize the '632 patent, which speaks for
 2 itself. Defendants deny that the claims of the '632 patent are directed to patent-eligible inventions.
 3 Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 38.

4 39. Defendants admit that Exhibit E to the Complaint purports to be a copy of U.S. Patent
 5 No. 7,725,253 ("253 patent"). Defendants admit that, on its face, the '253 patent is entitled "Tracking,
 6 Auto-Calibration, and Map-Building System." Defendants deny that the '253 patent is valid and
 7 enforceable. Defendants are without knowledge or information sufficient to either admit or deny the
 8 remaining allegations of paragraph 39, and therefore deny them.

9 40. Defendants admit Plaintiffs purport to characterize the '253 patent, which speaks for
 10 itself. Defendants deny that the claims of the '253 patent are directed to patent-eligible inventions.
 11 Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 40.

12 41. Defendants admit that Plaintiffs purport to characterize and reference certain excerpts
 13 of the '068 patent, '648 patent, '024 patent, '632 patent, and '253 patent (collectively, "Asserted
 14 Patents"). The Asserted Patents speak for themselves. Defendants deny that the claims of the Asserted
 15 Patents are directed to patent-eligible inventions. Except as expressly admitted herein, Defendants
 16 deny the remaining allegations of paragraph 41.

17 42. Defendants admit that Plaintiffs purport to characterize and reference certain excerpts
 18 of the Asserted Patents, which speak for themselves. Defendants deny that the Asserted Patents claim
 19 inventive concepts that are substantially more than abstract ideas. Except as expressly admitted herein,
 20 Defendants deny the remaining allegations of paragraph 42.

21 **III. THE ACCUSED PRODUCTS**

22 43. Defendants admit that Plaintiffs purport to characterize a Facebook online news article
 23 dated March 25, 2014, titled "*Facebook to acquire Oculus*," which speaks for itself. Defendants admit
 24 that Facebook announced its acquisition of Oculus VR, Inc. in March 2014. Defendants admit that
 25 Facebook's acquisition of Oculus VR, Inc. closed in July 2014. Defendants admit that Plaintiffs
 26 purport to characterize a Reuters online article dated January 17, 2017, titled "*Facebook's Zuckerberg
 27 questioned at trial over virtual-reality technology*," which speaks for itself. Except as expressly
 28 admitted herein, Defendants deny the remaining allegations of paragraph 43.

1 44. Defendants admit that Plaintiffs purport to characterize a public Oculus support
 2 webpage titled “*Getting started with Oculus Rift S*” and a public website dated March 3, 2017, and
 3 titled “*Oculus Cuts Price of Rift Sensors to \$59*,” which speak for themselves. Defendants admit that
 4 the Oculus Rift was commercially available for purchase in 2016. Except as expressly admitted herein,
 5 Defendants deny the remaining allegations of paragraph 44.

6 45. Defendants admit that Plaintiffs purport to characterize a public Oculus webpage dated
 7 April 30, 2019, titled “*Game on: Oculus Quest and Rift S Pre-orders are live! Shipping Begins May*
 8 *21*,” which speaks for itself. Defendants admit that Oculus Quest was available for preorders on April
 9 30, 2019, and available for commercial shipping on May 21, 2019. Except as expressly admitted
 10 herein, Defendants deny the remaining allegations of paragraph 45.

11 46. Defendants admit that Plaintiffs purport to characterize a public website dated May 21,
 12 2019, titled “*Oculus Quest Review – The First Great Standalone VR Headset*,” which speaks for itself.
 13 Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 46.

14 47. Defendants admit that Plaintiffs purport to characterize a public Oculus webpage dated
 15 April 30, 2019, titled “*Game on: Oculus Quest and Rift S Pre-orders are live! Shipping Begins May*
 16 *21*,” which speaks for itself. Defendants admit that Oculus Rift S was available for preorders on April
 17 30, 2019, and available for commercial shipping on May 21, 2019. Except as expressly admitted
 18 herein, Defendants deny the remaining allegations of paragraph 47.

19 48. Defendants admit that Plaintiffs purport to characterize a public webpage dated May
 20 20, 2019, titled “*Oculus Rift S Revealed with Inside-out Tracking, Resolution Bump, & New*
 21 *Ergonomics*,” which speaks for itself. Except as expressly admitted herein, Defendants deny the
 22 remaining allegations of paragraph 48.

23 49. Defendants admit that Oculus Quest 2 is a virtual reality product that is currently
 24 commercially available. Defendants admit that Oculus Quest 2 was available for preorders on
 25 September 16, 2020, and available for commercial shipping on October 13, 2020. Except as expressly
 26 admitted herein, Defendants deny the remaining allegations of paragraph 49.

27 50. Defendants admit that Plaintiffs purport to characterize a public webpage dated October
 28 13, 2020, titled “*Oculus Quest 2 Review – The Best Standalone Headset Gets Better in (Almost) Every*

1 “Way,” which speaks for itself. Defendants admit that Plaintiffs purport to excerpt an image of Oculus
 2 Quest 2 from an Oculus webpage available at <https://www.oculus.com/quest-2/>. Except as expressly
 3 admitted herein, Defendants deny the remaining allegations of paragraph 50.

4 51. Defendants admit that Plaintiffs purport to characterize a public online article dated
 5 January 27, 2021, titled “*Mark Zuckerberg: Quest 2 ‘Is On Track To Be The First Mainstream VR*
 6 *Headset,*” which speaks for itself. Except as expressly admitted herein, Defendants deny the
 7 remaining allegations of paragraph 51.

8 **IV. DEFENDANTS’ NOTICE OF THE ASSERTED PATENTS AND CONTINUED
 9 INFRINGEMENT**

10 52. Defendants admit that Facebook received a letter dated January 26, 2021 from Adam
 11 Harber of Williams & Connolly LLP, but deny that Mr. Harber’s letter constituted actual notice.
 12 Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 52, and
 13 specifically deny that they have committed any acts of infringement.

14 53. Defendants admit that Plaintiffs purport to quote from a January 17, 2017 jury trial
 15 transcript from *Zenimax Media Inc. v. Oculus VR, LLC*, No. 3:14-cv-01849-K (N.D. Tex. Feb. 9,
 16 2017), ECF No. 928. The jury transcript speaks for itself. Except as expressly admitted herein,
 17 Defendants deny the remaining allegations of paragraph 53.

18 54. Defendants admit that Facebook completed its acquisition of Oculus VR, Inc. in 2014.
 19 Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 54.

20 55. Defendants are without knowledge or information sufficient to either admit or deny the
 21 allegations of paragraph 55, and therefore deny them.

22 56. Defendants admit that they share a legal department, but deny that Defendants were on
 23 notice of the Asserted Patents. Except as expressly admitted herein, Defendants deny the remaining
 24 allegations of paragraph 56.

25 57. Defendants admit that U.S. Patent Pub. No. 2007/0081695 A1 was identified in an
 26 Information Disclosure Statement dated May 31, 2018, during the prosecution of U.S. Patent App.
 27 Serial No. 15/986,148, which issued as U.S. Patent No. 10,594,396, but deny that this placed

1 Defendants on notice of the '024 patent. Except as expressly admitted herein, Defendants deny the
 2 remaining allegations of paragraph 57.

3 58. Defendants admit that U.S. Patent Pub. No. 2007/0081695 A1 was identified in an
 4 Information Disclosure Statement dated May 31, 2018, during the prosecution of U.S. Patent App.
 5 Serial No. 15/986,148, which issued as U.S. Patent No. 10,594,396, but deny that this placed
 6 Defendants on notice of the '253 patent. Defendants admit the '253 patent purports to be a
 7 continuation of the '632 patent. Except as expressly admitted herein, Defendants deny the remaining
 8 allegations of paragraph 58.

9 59. Defendants admit that U.S. Patent Pub. No. 2002/0024675 A1 was identified in an
 10 Information Disclosure Statement dated April 17, 2019, during the prosecution of U.S. Patent App.
 11 Serial No. 15/835,846, which issued as U.S. Patent No. 10,514,545, but deny that this placed
 12 Defendants on notice of the '068 patent. Defendants admit that U.S. Patent Pub. No. 2002/0024675
 13 A1 was identified in an Information Disclosure Statement dated October 22, 2019, during the
 14 prosecution of U.S. Patent App. Serial No. 15/919,887, which issued as U.S. Patent No. 10,572,002,
 15 but deny that this placed Defendants on notice of the '068 patent. Defendants admit that U.S. Patent
 16 Pub. No. 2002/0024675 A1 was identified in a Notice of References Cited dated May 31, 2019, during
 17 prosecution of U.S. Patent App. Serial No. 15/919,869, which issued as U.S. Patent No. 10,528,133,
 18 but deny that this placed Defendants on notice of the '068 patent. Defendants admit the '648 patent
 19 purports to be a continuation of the '068 patent. Except as expressly admitted herein, Defendants deny
 20 the remaining allegations of paragraph 59.

21 60. Defendants admit that, on July 8, 2020, counsel for Gentex emailed Facebook's counsel
 22 a summary of certain patents for which Gentex purported to have an exclusive field-of-use license,
 23 including the Asserted Patents. Defendants admit that Facebook responded. Defendants admit that
 24 the parties did not reach an agreement. Except as expressly admitted herein, Defendants deny the
 25 remaining allegations of paragraph 60.

26 61. Defendants admit that, on January 26, 2021, counsel for Plaintiffs sent Defendants a
 27 letter and claim charts purporting to identify how certain products infringed certain claims of the
 28 Asserted Patents and U.S. Patent No. 7,990,524. Defendants admit that Plaintiffs and Defendants did

1 not reach any agreement regarding licensing, but deny that they infringe any claim of the Asserted
2 Patents. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph
3 61.

4 62. Denied.

5 63. Denied.

6 **COUNT I**
7 **INFRINGEMENT OF U.S. PATENT 6,757,068**

8 64. Defendants incorporate paragraphs 1-63 herein by reference.

9 65. Denied.

10 66. Denied.

11 67. Denied.

12 68. Defendants admit that Plaintiffs purport to characterize the '068 patent, which speaks
13 for itself. Except as expressly admitted herein, Defendants deny any remaining allegations of
14 paragraph 68.

15 69. Defendants admit that the phrase "a tracking system" appears to characterize the
16 preamble of claim 54 of the '068 patent, which speaks for itself. Defendants deny they infringe any
17 claim of the '068 patent. Except as expressly admitted herein, Defendants deny any remaining
18 allegations of paragraph 69.

19 70. Denied.

20 71. Defendants admit that Plaintiffs purport to characterize a public Facebook AI webpage
21 dated August 22, 2019. The webpage speaks for itself. Defendants deny the remaining allegations of
22 paragraph 71.

23 72. Defendants admit that Exhibit F to the Complaint purports to be a claim chart with
24 respect to the '068 patent. Except as expressly admitted herein, Defendants deny the remaining
25 allegations of paragraph 72, and specifically deny that they have committed any acts of infringement
26 of the '068 patent.

27 73. Defendants are without knowledge or information sufficient to either admit or deny the
28 allegations of paragraph 73, and therefore deny them.

74. Defendants admit that Facebook received an email from John L. Hemmer dated July 8, 2020 that identified the '068 patent, but deny that the email constituted sufficient notice of any alleged infringement by Defendants. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 74.

75. Denied.

76. Defendants admit that they were notified of the '068 patent at the time they were served with the Complaint dated July 22, 2021. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 76.

77. Defendants deny the allegations of paragraph 77, and deny that they have committed any acts of infringement.

78. Defendants deny the allegations of paragraph 78, and deny that they have committed any acts of infringement.

79. Defendants deny the allegations of paragraph 79, and deny that they have committed any acts of infringement.

80. Denied.

COUNT II
INFRINGEMENT OF U.S. PATENT 7,301,648

81. Defendants incorporate paragraphs 1-80 herein by reference.

82. Denied.

83. Denied.

84 Denied

85. Defendants admit that Plaintiffs purport to characterize the '648 patent, which speaks for itself. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 85.

86. Denied.

87. Denied.

88. Denied.

89. Denied.

90. Defendants admit that Exhibit G to the Complaint purports to be a claim chart with respect to the '648 patent. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 90, and specifically deny that they have committed any acts of infringement of the '648 patent.

91. Defendants are without knowledge or information sufficient to either admit or deny the allegations of paragraph 91, and therefore deny them.

92. Defendants admit that Facebook received an email from John L. Hemmer dated July 8, 2020 that identified the '648 patent, but deny that the email constituted sufficient notice of any alleged infringement by Defendants. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 92.

93. Denied.

94. Defendants admit that they were notified of the '648 patent at the time they were served with the Complaint dated July 22, 2021. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 94.

95. Defendants deny the allegations of paragraph 95, and deny that they have committed any acts of infringement.

96. Defendants deny the allegations of paragraph 96, and deny that they have committed any acts of infringement.

97. Defendants deny the allegations of paragraph 97, and deny that they have committed any acts of infringement.

98. Denied.

COUNT III
INFRINGEMENT OF U.S. PATENT 8,224,024

99. Defendants incorporate paragraphs 1-98 herein by reference.

100 Denied

101 Denied

102 Denied

1 103. Defendants admit that Plaintiffs purport to characterize the '024 patent, which speaks
2 for itself. Except as expressly admitted herein, Defendants deny the remaining allegations of
3 paragraph 103.

4 104. Denied.

5 105. Denied.

6 106. Denied.

7 107. Defendants admit that Exhibit H to the Complaint purports to be a claim chart with
8 respect to the '024 patent. Except as expressly admitted herein, Defendants deny the remaining
9 allegations of paragraph 107, and specifically deny that they have committed any acts of infringement
10 of the '024 patent.

11 108. Defendants are without knowledge or information sufficient to either admit or deny the
12 allegations of paragraph 108, and therefore deny them.

13 109. Defendants admit that Facebook received an email from John L. Hemmer dated July 8,
14 2020 that identified the '024 patent, but deny that the email constituted sufficient notice of any alleged
15 infringement by Defendants. Except as expressly admitted herein, Defendants deny the remaining
16 allegations of paragraph 109.

17 110. Denied.

18 111. Defendants admit that they were notified of the '024 patent at the time they were served
19 with the Complaint dated July 22, 2021. Except as expressly admitted herein, Defendants deny the
20 remaining allegations of paragraph 111.

21 112. Defendants deny the allegations of paragraph 112, and deny that they have committed
22 any acts of infringement.

23 113. Defendants deny the allegations of paragraph 113, and deny that they have committed
24 any acts of infringement.

25 114. Defendants deny the allegations of paragraph 114, and deny that they have committed
26 any acts of infringement.

27 115. Denied.

COUNT IV
INFRINGEMENT OF U.S. PATENT 6,992,632

116. Defendants incorporate paragraphs 1-115 herein by reference.

117. Denied.

118. Denied.

119. Denied.

120. Defendants admit that Plaintiffs purport to characterize the '632 patent, which speaks for itself. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 120.

121. Denied.

122. Denied.

123. Denied.

124. Defendants admit that Exhibit I to the Complaint purports to be a claim chart with respect to the '632 patent. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 124, and specifically deny that they have committed any acts of infringement of the '632 patent.

125. Defendants are without knowledge or information sufficient to either admit or deny the allegations of paragraph 125, and therefore deny them.

126. Defendants admit that Facebook received an email from John L. Hemmer dated July 8, 2020 that identified the '632 patent, but deny that the email constituted sufficient notice of any alleged infringement by Defendants. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 126.

127. Denied.

128. Defendants admit that they were notified of the '632 patent (and the '024 patent) at the time they were served with the Complaint dated July 22, 2021. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 128.

129. Defendants deny the allegations of paragraph 129, and deny that they have committed any acts of infringement.

130. Defendants deny the allegations of paragraph 130, and deny that they have committed any acts of infringement.

131. Defendants deny the allegations of paragraph 131, and deny that they have committed any acts of infringement.

132. Denied.

COUNT V
INFRINGEMENT OF U.S. PATENT 7,725,253

133. Defendants incorporate paragraphs 1-132 herein by reference.

134. Denied.

135. Denied.

136. Denied.

137. Defendants admit that Plaintiffs purport to characterize the '253 patent, which speaks for itself. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 137.

138. Defendants admit that the phrase “tracking system” appears to characterize the preamble of claim 1 of the ’253 patent, which speaks for itself. Defendants deny they infringe any claim of the ’253 patent. Except as expressly admitted herein, Defendants deny any remaining allegations of paragraph 138.

139. Denied.

140. Denied.

141. Denied.

142. Defendants admit that Exhibit J to the Complaint purports to be a claim chart with respect to the '253 patent. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 142, and specifically deny that they have committed any acts of infringement of the '253 patent.

143. Defendants are without knowledge or information sufficient to either admit or deny the allegations of paragraph 143, and therefore deny them.

144. Defendants admit that Facebook received an email from John L. Hemmer dated July 8, 2020 that identified the '253 patent, but deny that the email constituted sufficient notice of any alleged infringement by Defendants. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 144.

145. Denied.

146. Defendants admit that they were notified of the '253 patent at the time they were served with the Complaint dated July 22, 2021. Except as expressly admitted herein, Defendants deny the remaining allegations of paragraph 146.

147. Defendants deny the allegations of paragraph 147, and deny that they have committed any acts of infringement.

148. Defendants deny the allegations of paragraph 148, and deny that they have committed any acts of infringement.

149. Defendants deny the allegations of paragraph 149, and deny that they have committed any acts of infringement.

150. Denied.

RESPONSE TO PLAINTIFFS' REQUEST FOR A JURY TRIAL

151. Defendants deny that Plaintiffs are entitled to any relief. Defendants also request a trial by jury.

RESPONSE TO PLAINTIFFS' PRAYER FOR RELIEF

Defendants oppose Plaintiffs' requested relief, including the relief specified in paragraphs A through G of this section of the Complaint.

GENERAL DENIAL

Except as specifically admitted herein, Defendants deny the remaining allegations in the Complaint.

AFFIRMATIVE DEFENSES

Pursuant to Federal Rule of Civil Procedure 8(c), and without altering any applicable burdens of proof, Defendants assert the following defenses to the Complaint and reserve their right to assert additional defenses.

FIRST AFFIRMATIVE DEFENSE – NON-INFRINGEMENT

Defendants do not infringe and have not infringed, directly or indirectly, contributorily or by inducement, any valid and enforceable claim of the Asserted Patents either literally or under the doctrine of equivalents.

SECOND AFFIRMATIVE DEFENSE – INVALIDITY

Claims of the Asserted Patents are invalid for failure to satisfy the conditions of patentability set forth in 35 U.S.C. § 101 *et seq.*, including but not limited to §§ 101, 102, 103, and 112.

THIRD AFFIRMATIVE DEFENSE – FAILURE TO STATE A CLAIM

The Complaint fails to state a claim upon which relief can be granted.

FOURTH AFFIRMATIVE DEFENSE – PROSECUTION HISTORY ESTOPPEL

Plaintiffs' claims are barred or limited from recovery, in whole or in part, by the doctrine of prosecution history estoppel.

FIFTH AFFIRMATIVE DEFENSE – EQUITABLE DEFENSES

Plaintiffs' claims are barred, in whole or in part, by the doctrines of estoppel, acquiescence, laches, waiver, unclean hands, and/or other equitable defenses.

SIXTH AFFIRMATIVE DEFENSE – LIMITATION ON DAMAGES

Plaintiffs are barred or limited in recovery, in whole or in part, by failing to meet the requirements of 35 U.S.C. §§ 286, 287, and/or 288.

SEVENTH AFFIRMATIVE DEFENSE – NO WILLFULNESS

Plaintiffs are barred from obtaining a finding of willfulness or receiving enhanced damages because they have failed to set forth facts alleging reprehensible culpability on the part of Defendants, which is prerequisite for a finding of willfulness and an award of enhanced damages.

EIGHTH AFFIRMATIVE DEFENSE – LACK OF SUFFICIENT RIGHTS TO SUE

On information and belief, Plaintiffs' claims are barred, in whole or in part, because Plaintiffs lack sufficient rights to sue or grant licenses under the Asserted Patents. Plaintiffs do not own the Asserted Patents. As pled by Plaintiffs, Involuntary Plaintiff Thales is the assignee and sole and exclusive owner of the Asserted Patents.

NINTH AFFIRMATIVE DEFENSE – GOVERNMENT SALES EXCEPTION

Plaintiffs' claims are barred, in whole or in part, to the extent that Plaintiffs accuse Defendants' products or services that are provided by or for the United States of America pursuant to 28 U.S.C. § 1498(a).

TENTH AFFIRMATIVE DEFENSE – INEQUITABLE CONDUCT

A party pleading inequitable conduct must include “sufficient allegations of underlying facts from which a court may reasonably infer that a specific individual (1) knew of the withheld material information or of the falsity of the material misrepresentation, and (2) withheld or misrepresented this information with a specific intent to deceive the PTO.” *Exergen Corp. v. Wal-Mart Stores, Inc.*, 575 F.3d 1312, 1328-29 (Fed. Cir. 2009). The Federal Circuit has confirmed that “[a] reasonable inference is one that is plausible and that flows logically from the facts alleged, including any objective indications of candor and good faith.” *Id.* at 1329 n. 5. “Pleading on ‘information and belief’ is permitted under Rule 9(b) when essential information lies uniquely within another party’s control.” *Id.* at 1330-31.

Mr. Foxlin is acting as a paid consultant to Plaintiffs, and Plaintiffs' counsel is representing Mr. Foxlin. Plaintiffs' counsel is controlling access to Mr. Foxlin's materials despite Meta's subpoena to Mr. Foxlin almost ten months ago on May 9, 2022 such that essential information relevant to Mr. Foxlin's inequitable conduct is in Mr. Foxlin's or Plaintiffs' control but not Meta's.

Factual Background

Each of the Asserted Patents is unenforceable because of repeated inequitable conduct before the United States Patent and Trademark Office (“PTO”) by the applicant and named inventor Eric Foxlin.

The Asserted Patents are unenforceable due to the applicant's inequitable conduct during the prosecution of:

(1) U.S. Patent Application No. 09/770,691, which issued as U.S. Patent No. 6,757,068 (“the ’068 Patent”) on June 29, 2004. Plaintiffs represented that the ’068 Patent has a priority date of January 28, 2000.

(2) U.S. Patent Application No. 11/463,776, which issued as U.S. Patent No. 7,301,648 ("the '648 Patent") on November 27, 2007. Plaintiffs represented that the '648 Patent has a priority date of January 28, 2000.

(3) U.S. Patent Application No. 10/639,242, which issued as U.S. Patent No. 6,922,632 ("the '632 Patent") on July 26, 2005. Plaintiffs initially represented that the '632 Patent has a priority date of August 9, 2002, but later amended this priority date to June 13, 2001.¹

(4) U.S. Patent Application No. 11/147,688, which issued as U.S. Patent No. 7,725,253 ("the '253 Patent") on May 25, 2010. Plaintiffs initially represented that the '253 Patent has a priority date of August 9, 2002, but later amended this priority date to June 13, 2001.²

(5) U.S. Patent Application No. 11/543,008, which issued as U.S. Patent No. 8,224,024 (“the ’024 Patent”) on July 17, 2012. Plaintiffs initially represented that the ’024 Patent has a priority date of October 4, 2005, but later amended this priority date to July 14, 2005.³

The Asserted Patents are unenforceable due to the commission of inequitable conduct and violation of the provisions of 37 C.F.R. § 1.56, which imposes a duty of candor and good faith in dealing with the PTO on all individuals associated with the filing and prosecution of a patent application, as well as 37 C.F.R. § 1.98, which sets forth the required content for information disclosure statements (“IDS”) submitted during prosecution of a U.S. patent application.

On information and belief, at least Mr. Foxlin withheld material prior art references during the prosecution of all five Asserted Patents and did so with the specific intent to mislead or deceive the PTO.

Mr. Foxlin pursued a master’s degree and a doctorate in electrical engineering and computer science at the Massachusetts Institute of Technology (“MIT”) from 1990 through 1996. While at MIT, Mr. Foxlin worked at MIT’s Research Laboratory of Electronics. Further, Mr. Foxlin, attended at least the IEEE Virtual Reality Annual International Symposium in March–April of 1996, where he

¹ Meta does not concede that the '632 Patent is entitled to either the August 9, 2002 or June 13, 2001 priority date.

² Meta does not concede that the '253 Patent is entitled to either the August 9, 2002 or June 13, 2001 priority date.

³ Meta does not concede that the '024 Patent is entitled to either the October 4, 2005 or July 14, 2005 priority date.

1 submitted a conference paper regarding “Inertial head-tracker sensor fusion by a complementary
 2 separate-bias Kalman filter.”

3 Later in 1996, Mr. Foxlin founded a company named InterSense (formerly, Angularis Inertial
 4 Technologies), which began as a commercial extension of Mr. Foxlin’s research at M.I.T. During this
 5 time, Mr. Foxlin was conducting research on inertial sensors and the methods of tracking in the field
 6 of virtual reality. InterSense, for example, publicly sold, and therefore caused to be used by others, the
 7 following products: the IS-300 (at least by 1997), the IS-600 (at least by 1998), the InterTrax (at least
 8 by 1998), the IS-900 (at least by 1998), and the InterTrax2 (at least by 2000). *See, e.g.*, Ex. A-E.

9 ***Prosecution of the '068 and '648 Patents***

10 Four years later on January 28, 2000, Mr. Foxlin filed U.S. Provisional Application No.
 11 60/178,797, which is the parent provisional application to both the '068 and '648 Patents. The '068
 12 and '648 Patents’ purported invention is “[a] new tracking technique is essentially ‘**sourceless**’ in that
 13 it can be used anywhere with no set-up . . .” '068 Patent, Abstract; '648 Patent, Abstract. Both patents
 14 explain that “[s]ourceless orientation trackers have been developed based on geomagnetic and/or
 15 **inertial sensors**.” '068 Patent, 1:26-27; '648 Patent, 1:33-34. The patents further explain that “the
 16 invention features mounting a first **inertial sensor on a user’s head**.” '068 Patent, 4:32-33; '648
 17 Patent, 4:33-34. The patents also allege that the “core of this implementation is an inertial head
 18 orientation module.” '068 Patent, 6:35-56; '648 Patent, 6:35-36. **5 of the 8** independent claims of these
 19 two patents relate to mounting a “sourceless” orientation tracker or an “inertial sensor” on a user’s
 20 head.

21 As early as 1995, Mr. Foxlin, was aware of and had assisted in publishing articles about
 22 “sourceless trackers.” For example, in 1995, Mr. Foxlin assisted in publishing an article in VR News
 23 entitled “Sourceless Tracker” by Robin Hollands. *See* Ex. G (R. Hollands, *Sourceless Trackers*, VR
 24 NEWS TECH. REV., Vol. 4.3 (Apr. 1995) (“Hollands”)).

25 [REDACTED]
 26 [REDACTED] Yet Mr. Foxlin did not disclose this
 27 article to the PTO during the prosecution of either the '068 or '648 Patents, despite claiming in those
 28 patents “a new tracking technique is essentially ‘sourceless.’” Mr. Foxlin did, however, disclose this

1 reference as material prior art during the prosecution of later filed patents, including U.S. Patent Nos.
 2 6,409,687 and 6,176,837, where sourceless orientation tracking was not the claimed invention.

3 As another example, Mr. Foxlin, was aware of and had in his possession a 1994 article
 4 describing “self tracking” where the “moving object is essentially tracking itself” through the use of
 5 “inertial tracking systems.” *See Ex. I (FOXLIN0000708, Strickland, et al., Self Tracking of Human*
 6 *Motion for Virtual Reality Systems, SPIE Vol. 2177, 278-287 (1994) (“Strickland”)).* The Strickland
 7 article explains that a head motion self-tracker includes certain advantages, e.g.: “[c]ustom rooms
 8 would not be necessary. The tracker would be tied to the display helmet, **allowing use anywhere** there
 9 is a connection to a computer and headset for display. This opens the possibility for portable systems,
 10 which could be mounted to the user like a backpack.” *Id.* at 2177. Again, Mr. Foxlin did not disclose
 11 this reference to the PTO during prosecution of the ’068 and ’648 Patents.

12 As a third example, also in 1994, Mr. Foxlin co-authored a paper entitled “An Inertial Head-
 13 Orientation Tracker With Automatic Drift Compensation for Use with HMD’s.” *Ex. J (Foxlin, E. &*
 14 *N. Durlach., An Inertial Head-Orientation Tracker With Automatic Drift Compensation For Use With*
 15 *HMD’s, In Proceedings of Virtual Reality Software and Technology (August 23-26, 1994), G. Singh,*
 16 *S.K. Feiner, D. Thalmann (eds.), World Scientific, Singapore (1994) (“Foxlin 1994”)).* This paper
 17 explains that “***an inertial head-orientation tracker*** has been built and bench-tested for accuracy,
 18 resolution, noise, and latency.” *Id.* at Abstract. Mr. Foxlin also did not disclose this reference to the
 19 PTO during prosecution of the ’068 and ’648 Patents.

20 As another example, Mr. Foxlin failed to disclose that he sold products that practice the ’068
 21 and ’648 Patents prior to filing a patent application disclosing the alleged invention. At least by 1997,
 22 Mr. Foxlin publicly disclosed and made available for sale the IS-300 via the InterSense Inc. homepage,
 23 which the patent specification says was used to build a prototype of the alleged invention. ’068 Patent,
 24 5:45-47; ’648 Patent, 5:45-47. At least by 1998, Mr. Foxlin publicly disclosed and made available for
 25 sale the IS-600 via the InterSense Inc. homepage, which is a later model of the IS-300 described in the
 26 patent as a prototype. Additionally, Mr. Foxlin publicly disclosed and made available for sale the
 27 InterTrax system at least by 1998. The patent specification calls a later version of the InterTrax system
 28 (*i.e.*, the InterTrax2) the “core” of the inertial head orientation module in the ’068 and ’648

1 specifications ('068 Patent, 6:35-38; '648 Patent, 6:35-38), [REDACTED]

2 [REDACTED] See Ex. K (GNTX0001844) at 2. While the
 3 patent specifications mention the IS-300 and the InterTrax2, the specification never mentions the IS-
 4 600 or the earlier InterTrax. Mr. Foxlin also never disclosed that the IS-300, IS-600, and InterTrax
 5 were publicly available years before filing his application. Yet, again, where “sourceless” tracking
 6 was not the subject matter of Mr. Foxlin’s patent, as for example in U.S. Patent No. 6,176,837, Mr.
 7 Foxlin did disclose manuals and other brochures about these and similar InterSense products. Ex. L
 8 ('837 File History).

9 As another example, Mr. Foxlin produced multiple documents on February 27, 2023, in
 10 response to a subpoena served 9.5 months earlier on May 9, 2022, showing that he offered a
 11 [REDACTED]

12 [REDACTED] See, e.g., Ex. M (FOXLIN0004290 at 4293); see also Ex. N (FOXLIN0004309);
 13 Ex. O (FOXLIN0004319). In the same document, Mr. Foxlin describes the [REDACTED]

14 [REDACTED] Likewise, this document states that [REDACTED]
 15 [REDACTED]
 16 [REDACTED]

17 [REDACTED] *Id.* at 4290. Each of these documents indicate that Mr. Foxlin was selling [REDACTED]
 18 [REDACTED] while his company was still named Angularis Inertial Technologies, which,
 19 on information and belief, was around 1996—four years before Mr. Foxlin ever filed the provisional
 20 application to the '068 and '648 Patents.⁴

21 ***Prosecution of the '632 and '253 Patents***

22 On August 9, 2002, Mr. Foxlin filed U.S. Provisional Application No. 60/402,178, which is
 23 the parent application to both the '632 and '253 Patents. The alleged invention of both the '632 and
 24 '253 Patents “features a navigation or motion tracking system in which components associated with
 25 particular sensors are decoupled from a tracking component . . .” '632 Patent, 2:21-24; '253 Patent,
 26 2:22-24. The patents go on to explain that the alleged invention “enables development of sensor-

27 ⁴ On information and belief, Mr. Foxlin also was aware of other prior art systems ([REDACTED])

28 [REDACTED] Ex. U (FOXLIN0001365)

1 specific components independently of the tracking component, and enables sensors and their
 2 associated components to be added or removed without having to reimplement the tracking
 3 component.” ’632 Patent, Abstract; ’253 Patent, Abstract. In the “software implementation” of the
 4 alleged invention, “sensor-specific software components may be dynamically incorporated into the
 5 system and the tracking component is then automatically configured to take advantage of
 6 measurements from the corresponding sensors without having to modify the tracking component.”
 7 ’632 Patent, Abstract; ’253 Patent, Abstract. All 13 independent claims of the ’632 and ’253 Patents
 8 include some variation on this topic of sensors subsystem coupled to an estimation subsystem.

9 Years earlier, in 1995, Gregory Welch had just completed a Masters in Computer Science at
 10 the University of North Carolina at Chapel Hill (“UNC”). From 1996 to 1997, Dr. Welch was working
 11 towards his Ph.D. in Computer Science at UNC and was also a Research Professor of Computer
 12 Science at the same institution. While at UNC, Dr. Welch began working on the HiBall System, which
 13 is an “‘inside-looking-out’ optoelectronic system designed for interactive computer graphic or virtual
 14 environments.” Ex. P (G. Welch, SCAAT: Incremental Tracking with Incomplete Information
 15 (October 1996) (Ph.D. dissertation, Univ. of N.C. at Chapel Hill) (on file with Dept. of Comp. Sci.,
 16 Univ. of N.C.) (“Welch Thesis”)). In fact, Dr. Welch’s Thesis, publicly available as early as 1997,
 17 involved the use of the HiBall system to conduct experiments with Kalman filters, and in particular a
 18 new approach to Kalman Filtering called “single-constraint-at-a-time or SCAAT.” Welch Thesis at
 19 Abstract. The SCAAT method allowed for “multisensors data fusion.” Dr. Welch continued to publish
 20 lengthy papers about the HiBall system including Welch, G. et al., “SCAAT: Incremental Tracking
 21 with Incomplete Information” (1997) (“Welch 1997”) (Ex. Q) and Welch, G. et al., “High-
 22 Performance Wide-Area Optical Tracking” (2001) (“Welch 2001”) (Ex. R). Each of these papers
 23 explains that the HiBall sensors (like the claimed “sensor subsystem”) are coupled to a host computer
 24 (like the claimed “estimation system”) that estimates the HiBall sensor’s state using SCAAT.

25 Mr. Foxlin was aware of the HiBall system and Dr. Welch’s work on Kalman Filtering but
 26 failed to disclose any references about the HiBall system to the PTO. Upon information and belief,
 27 Mr. Foxlin visited Welch’s lab at UNC and interacted with the HiBall system; later, Mr. Foxlin filed
 28 the ’632 and ’253 Patents. Mr. Foxlin and Dr. Welch also jointly co-authored a paper discussing the

1 HiBall system in 2002, just months after Mr. Foxlin filed his provisional application. Ex. S (G. Welch
 2 & E. Foxlin, *Motion Tracking: No Silver Bullet, But a Respectable Arsenal*, IEEE Computer Graphics
 3 and Applications, 22(6):24–38, 2002). The '632 Patent was filed in 2003 and the '253 Patent was filed
 4 in 2005, yet Mr. Foxlin did not make a single reference to Welch or HiBall in either specification or
 5 in the prosecution history.

6 As another example, Mr. Foxlin failed to disclose that he sold products that practice the '632
 7 and '253 Patents prior to filing a patent application disclosing the alleged invention. At least by 2000,
 8 Mr. Foxlin publicly disclosed and made available for sale the IS-900. Yet this product was not
 9 disclosed to the PTO during prosecution of either the '632 or '253 Patents. [REDACTED]

10 [REDACTED].⁵ See Ex. T (GNTX0002091). Yet, Mr.
 11 Foxlin did disclose the IS-900 and related brochures during the prosecution of other patents. See Ex.
 12 L ('837 File History).

13 ***Prosecution of the '024 Patent***

14 On October 4, 2005, Mr. Foxlin filed U.S. Provisional Application No. 60/723,648, which is
 15 the parent application to the '024 Patent. The alleged invention of the '024 Patent is a method of
 16 calculating the “*spatial location* and azimuth” of an object “from the locations, in a single *camera*
 17 *image*, of exactly *two points* on the object and information about an *orientation of the object*.” '024
 18 Patent, Abstract; *see also id.*, claim 1.

19 On November 5, 2004, “FlightTracker: A Novel Optical/Inertial Tracker for Cockpit Enhanced
 20 Vision” by Mr. Foxlin published. Ex. V (E. Foxlin et al., *FlightTracker: A Novel Optical/Inertial*
 21 *Tracker for Cockpit Enhanced Vision*, Third IEEE and ACM International Symposium on Mixed and
 22 Augmented Reality, November 5, 2004.) (“FlightTracker”). FlightTracker discloses multiple tracking
 23 methods that use *optical sensors (e.g., cameras)* and inertial sensors. FlightTracker further discloses
 24 *algorithms to process data* from these sensors to track *position and orientation*. FlightTracker,
 25 Abstract. FlightTracker also discloses how the tracking system sees “*two targets* on the helmet” (i.e.,
 26 the claimed “exactly two points”). *Id.* at 6. Despite authoring this paper nearly a year before filing the
 27

28 ⁵ See fn. 1, *supra*.

1 provisional application to the '024 Patent, Mr. Foxlin did not disclose this reference to the PTO during
 2 prosecution.

3 **'068 and '648 Patents**

4 **Materiality:** With respect to the '068 and '648 Patents, Mr. Foxlin withheld multiple prior art
 5 references from the PTO including, at least, the material prior art references Hollands, Strickland, and
 6 Foxlin 1994 (Exs. G, I, J), each of which disclose “sourceless” tracking—*i.e.*, the '068 and '648
 7 Patents' alleged “new tracking technique”—years before Mr. Foxlin ever filed these patents. These
 8 references are material prior art to at least independent claims 1, 54, and 56 of the '068 Patent and
 9 independent claims 1 and 40 of the '648 Patent and all claims which depend from these five
 10 independent claims, because the PTO would not have allowed the claims had it been aware of these
 11 prior art references. *Compare* '068 Patent, claim 1 (“sourceless orientation tracker”), claim 54 (same),
 12 claim 56 (“inertial sensor on a user’s head”); '648 Patent, claim 1 (“sourceless orientation tracker”),
 13 claim 40 (“first sourceless orientation tracker”) *with* Ex. G (Hollands) at 23 (entitled “Sourceless
 14 Trackers”), at 23 (“Sourceless trackers on the other hand are by definition tracking systems that do not
 15 require a base, or source”), at 23 (“a sourceless tracker could operate in any environment and over an
 16 unlimited operating range, surely making it the ideal solution for almost any VR application”), at 27
 17 (“Sourceless trackers, used in combination with wireless signal transmission and portable workstation
 18 and battery packs offer the prospect of virtual world navigation free from the shackles of a base
 19 station”); Ex. I (Strickland) at 279 (“Inertial tracking systems have been around for some time in
 20 military guidance systems”), 280 (“completely self contained on each user, it was decided the tracker
 21 should be light, portable, and low cost”), at 280 (“tracker would be tied to the display helmet, allowing
 22 use anywhere there is a connection to a computer and headset for display”), at 280 (“It would be
 23 possible to extend this idea to upper body (of for that matter even full body) motion,”); Ex. J (Foxlin
 24 1994), at Abstract (“an inertial head-orientation tracker has been built”), at Abstract (“results indicate
 25 excellent potential for the use of inertial technology in head-tracking”), at 170 (“results show that the
 26 prototype inertial orientation tracker was in most ways successful at meeting the head-tracking
 27 needs”). Each of these independent claims includes a “sourceless” orientation tracker or “inertial”
 28 sensor on a user’s head, which was already disclosed in Hollands, Strickland, and Foxlin 1994. Mr.

1 Foxlin claimed “sourceless” tracking as an inventive part of the ’068 and ’648 Patents in spite of the
 2 prior disclosure of this “invention” in Hollands, Strickland, and Foxlin 1994 is evidence of why this
 3 information would be relevant and material to a PTO Examiner’s assessment of patentability of these
 4 claims.

5 Additionally, multiple InterSense products, including at least IS-300, IS-600, and InterTrax,
 6 are material prior art the ’068 and ’648 Patents and Mr. Foxlin withheld details regarding those
 7 products, and their sales and public availability, from the PTO during prosecution. Material prior art
 8 can be 35 U.S.C. §§ 102 or 103 prior art. *See* 37 CFR 1.56. Each of these products render obvious at
 9 least all of the independent claims of the ’068 and ’648 Patents. *See* Exs. W-BB (Meta’s 12-05-22
 10 Second Amended Invalidity Contentions, Exs. A-15, A-16, A-19, B-15, B-16, and B-19). Exhibits W-
 11 BB illustrate how these references are relevant and material to a PTO Examiner’s assessment of
 12 patentability. Moreover, [REDACTED]

13 [REDACTED] *See* Ex. K
 14 (GNTX0001844).

15 Mr. Foxlin further withheld from the PTO that he made [REDACTED]
 16 [REDACTED] *See*
 17 Ex. M. Mr. Foxlin himself advertised this system as an [REDACTED]
 18 [REDACTED] (*id.*), which *four years later*, Mr. Foxlin alleges
 19 in the ’068 and ’648 patent applications is a “new tracking technique.” But sourceless orientation
 20 tracking was not new; Mr. Foxlin had already made these systems available for sale. For example,
 21 these references are material prior art to at least independent claims 1, 54, and 56 of the ’068 Patent
 22 and independent claims 1 and 40 of the ’648 Patent and all claims which depend from these five
 23 independent claims, because the PTO would not have allowed the claims had it been aware of the
 24 public availability of the “sourceless” tracker as described in at least Exhibit M. *Compare* ’068 Patent,
 25 claim 1 (“sourceless orientation tracker”), claim 54 (same), claim 56 (“inertial sensor on a user’s
 26 head”); ’648 Patent, claim 1 (“sourceless orientation tracker”), claim 40 (“first sourceless orientation
 27 tracker”) *with* Ex. M [REDACTED]
 28 [REDACTED]

1 [REDACTED]
 2 [REDACTED] See also Ex. N (FOXLIN0004309); Ex. O (FOXLIN0004319). Compare '068
 3 Patent, claim 1 ("track a position . . . associated with a limb"), claim 54 (same), claim 55 (same); '648
 4 Patent, claim 1 ("track a position . . . associated with a body part") with Ex. M at 4290 [REDACTED]
 5 [REDACTED]

6 [REDACTED]. Mr. Foxlin claimed "sourceless" tracking as
 7 an inventive part of the '068 and '648 Patents in spite of the prior disclosure of this "invention" through
 8 the sale of products at his own company Angularis Inertial Technologies, which is evidence of why
 9 this information would be relevant and material to a PTO Examiner's assessment of patentability of
 10 these claims.

11 **Specific Intent:** Mr. Foxlin was aware of and had knowledge of Hollands, Strickland, and
 12 Foxlin 1994 (Exs. G, I, J) given they were in his possession, custody, or control and at least Hollands
 13 and Strickland were produced in response to a third-party subpoena served by Meta on Mr. Foxlin.
 14 Moreover, [REDACTED]

15 [REDACTED]. See Ex. H. Mr. Foxlin also co-authored the 1994 Foxlin article. The Federal Circuit confirmed in *Sanders*
 16 v. *The Mosaic Co.* that a Defendant alleging inequitable misconduct had met the pleading requirements
 17 where the facts asserted included failure to disclose publications to the PTO which the **patent owner**
 18 **co-authored**. 2011 WL 1491248, at *4 (Fed. Cir. Apr. 20, 2011); *see also Regeneron Pharm., Inc. v.*
 19 *Merus N.V.*, 864 F.3d 1343, 1350, 1353 (Fed. Cir. 2017) (finding Plaintiffs engaged in inequitable
 20 conduct where, among other factors, prosecution counsel and inventor were aware of prior art
 21 references and failed to disclose those references to the PTO, in particular where those references were
 22 disclosed in the prosecution of other patent applications). Here, Mr. Foxlin co-authored at least one
 23 paper disclosing the claim "new tracking" method "sourceless" tracking 6 years before every filing a
 24 patent on the subject matter, and [REDACTED] Hollands at least 5 years before ever filing a
 25 patent on the subject matter.

26 All three articles disclose "sourceless" tracking in a head-mounted device (e.g., inertial sensors
 27 that are alleged to be sourceless), which Foxlin alleges is an inventive aspect ("a new tracking

1 technique”) of the ’068 and ’648 Patents. ’068 Patent, Abstract; ’648 Patent, Abstract. Yet Mr. Foxlin
 2 did not disclose these references to the PTO during the prosecution of these patents. Mr. Foxlin did,
 3 however, disclose these references to the PTO during the prosecution of other patent applications he
 4 filed. For example, Mr. Foxlin disclosed Hollands, as well as IS-300 and IS-600 brochures, during the
 5 prosecution of at least U.S. Patent Nos. 6,409,687 and 6,176,837, where “sourceless” tracking was not
 6 the alleged inventive aspect of the patents. Mr. Foxlin was aware that these references were potential
 7 prior art given his submission of these articles and brochures to the PTO for other applications. But,
 8 here, where the name of the Hollands article itself includes the subject matter of the ’068 and ’648
 9 Patents, Mr. Foxlin withheld it. While Mr. Foxlin did mention the IS-300 and InterTrax products in
 10 the patent specification, he never disclosed the details of these products or that these products were on
 11 sale and available to others well before the alleged priority date of the ’068 and ’648 Patents.
 12 Moreover, on information and belief, Mr. Foxlin offered for sale at least by 1996 an inertial head-
 13 tracker that was [REDACTED] and suggested combining this with hand tracking
 14 technology. *See, e.g.*, Ex. M (FOXLIN0004290). Mr. Foxlin further withheld this information in
 15 response to a subpoena from Meta for over 9.5 months and produced it only three days before this
 16 pleading deadline. On information and belief, Mr. Foxlin has made a practice of withholding relevant
 17 and material prior art to the PTO during prosecution of his patent applications so as to secure two
 18 patents on information known to him and already made public long before in work by him and others.
 19 *See, e.g.*, *Regeneron Pharm.*, 864 F.3d at 1351 (“An inference of intent to deceive is appropriate
 20 where the applicant engages in “a pattern of lack of candor.”); *Avocent Huntsville, LLC v. ZPE Sys.,*
 21 *Inc.*, No. 3:17-CV-04319-WHO, 2018 WL 4859527, at *10 (N.D. Cal. July 23, 2018) (confirming “an
 22 intent to deceive” can be inferred from allegations that prior art references were deliberately omitted
 23 from the applications underlying the Asserted Patents but included in simultaneously prosecuted
 24 patent applications). Therefore, the single most reasonable inference here is that Mr. Foxlin was aware
 25 of these references but intentionally chose to withhold them during the prosecution of the ’068 and
 26 ’648 Patents, while submitting them in other proceedings, with deceptive intent.

27
 28

1 **'632 and '253 Patents**

2 **Materiality:** With respect to the '632 and '253 Patents, Mr. Foxlin withheld, at least, the
 3 material prior art references Welch Thesis, Welch 1997, Welch 2001, and the HiBall system, each of
 4 which individually and together anticipate or render obvious ***all of the currently asserted claims*** of
 5 the '632 and '253 Patents. *See* Ex. P-R. Material prior art can be 35 U.S.C. §§ 102 or 103 prior art.
 6 *See* 37 CFR 1.56. For example, each of these references were charted in Meta's invalidity contentions,
 7 illustrating why this information is material—*e.g.*, at least because each of these references renders
 8 the '632 and '253 Patent claims obvious and at least the HiBall system anticipates claims of both
 9 patents. *See* Ex. DD-KK (Meta's 12-05-22 Second Amended Invalidity Contentions, Exs. D-6, D-7,
 10 D-13, D-21, E-6, E-7, E-11, and E-21). Exhibits DD-KK illustrate how these references are relevant
 11 to a PTO Examiner's assessment of patentability.

12 Additionally, at least the InterSense IS-900 is material prior art the '632 and '253 Patents and
 13 Mr. Foxlin withheld details regarding this product, and its sales and public availability, from the PTO
 14 during prosecution. Material prior art can be 35 U.S.C. §§ 102 or 103 prior art. *See* 37 CFR 1.56. This
 15 product anticipates and/or renders obvious at least all of the independent claims of the '632 and '253
 16 Patents. *See* Ex. LL-MM (Meta's 12-05-22 Second Amended Invalidity Contentions, Exs. D-16 and
 17 E-14). Exhibits LL-MM illustrate how this product is relevant and material to a PTO Examiner's
 18 assessment of patentability. Moreover, [REDACTED]

19 [REDACTED] *See* Ex. T (GNTX0002091).

20 **Specific Intent:** Mr. Foxlin had knowledge of the HiBall system at least as of December 2002,
 21 when Greg Welch and Foxlin co-authored a paper together describing the HiBall system. *See* Ex. S.
 22 Because it often takes months to draft a technical paper, like this co-authored paper, on information
 23 and belief, Mr. Foxlin was aware of the HiBall system months prior to December 2002. “Pleading on
 24 ‘information and belief’ is permitted under Rule 9(b) when essential information lies uniquely within
 25 another party’s control.” *Exergen*, 575 F.3d at 1330-31. Here, essential information with respect to
 26 this paper is the particular date when Mr. Foxlin first learned about the HiBall system—such
 27 information would likely be uniquely in Mr. Foxlin, or possibly Mr. Welch’s control. Upon
 28 information and belief, Mr. Foxlin also visited Welch’s lab at UNC and interacted with the HiBall

1 system. The essential information here—*e.g.*, when Mr. Foxlin visited the UNC lab and what he
 2 learned about the HiBall system—would also be uniquely in Mr. Foxlin or Mr. Welch’s control.⁶
 3 Regardless, the ’632 Patent was not filed until 2003 and the ’253 Patent was not filed until 2005. Given
 4 the materiality of the Welch Thesis, Welch 1997, Welch 2001, and the HiBall system and Mr. Foxlin’s
 5 knowledge of that system, Mr. Foxlin had a duty of candor to disclose these references to the PTO,
 6 but he did not.

7 The Federal Circuit confirmed in *Sanders* that a Defendant alleging inequitable misconduct
 8 had met the pleading requirements where the facts asserted included failure to disclosure a relationship
 9 with certain entities and failure to disclose publications to the PTO that the patent owner co-authored.
 10 2011 WL 1491248, at *4; *see also Regeneron Pharm.*, 864 F.3d at 1350, 1353 (finding Plaintiffs
 11 engaged in inequitable conduct where, among other factors, prosecution counsel and inventor were
 12 aware of prior art references and failed to disclose those references to the PTO). Here, Mr. Foxlin
 13 failed to disclose a relationship with Mr. Welch, failed to disclose a paper he co-authored with Mr.
 14 Welch, and failed to disclose multiple material prior art references that invalidate the claims of both
 15 the ’632 and ’253 Patents. Therefore, the single most reasonable inference here is that Mr. Foxlin was
 16 aware of these references but intentionally chose to withhold them during the prosecution of the ’632
 17 and ’253 Patents, while submitting them in other proceedings, with deceptive intent.

18 Additionally, Mr. Foxlin did not disclose the IS-900 during the prosecution of the ’632 and
 19 ’253 Patents, despite [REDACTED] Ex. T
 20 (GNTX0002091). Mr. Foxlin did, however, disclose references about the IS-900 and other InterSense
 21 products to the PTO during the prosecution of other patent applications he filed. *See, e.g.*, Ex. L (’837
 22 File History). Mr. Foxlin was aware that these references were potential prior art given his submission
 23 of these brochures to the PTO for other applications. But, here, Mr. Foxlin withheld them. On
 24 information and belief, Mr. Foxlin has made a practice of withholding relevant and material prior art
 25 to the PTO during prosecution of his patent applications so as to secure a patent on information known
 26 to him and already made public long before in work by him and others. *See, e.g.*, *Regeneron Pharm.*,
 27

28 ⁶ Mr. Foxlin also had multiple documents about the HiBall tracker in his possession, custody, and control that were included in his recent February 27, 2023 production.

1 864 F.3d at 1351 (“An inference of intent to deceive is appropriate where the applicant engages in “a
 2 pattern of lack of candor.”); *Avocent Huntsville*, 2018 WL 4859527, at *10 (confirming “an intent to
 3 deceive” can be inferred from allegations that prior art references were deliberately omitted from the
 4 applications underlying the Asserted Patents but included in simultaneously prosecuted patent
 5 applications). Therefore, the single most reasonable inference here is that Mr. Foxlin was aware of
 6 these references but intentionally chose to withhold them during the prosecution of the ’632 and ’253
 7 Patents, while submitting them in other proceedings, with deceptive intent

8 **’024 Patent**

9 **Materiality:** With respect to the ’024 Patent, Mr. Foxlin withheld, at least, the material prior
 10 art “FlightTracker” which reads on claim 1 of the ’024 Patent (the only claim in the ’024 Patent). *See*
 11 Ex. V. Material prior art can be 35 U.S.C. §§ 102 or 103 prior art. *See* 37 CFR 1.56. Here,
 12 “FlightTracker” is at least § 103 prior art. The claims chart served on Plaintiffs in this litigation
 13 illustrate why the information is material—*e.g.*, at least because FlightTracker in combination with
 14 generally known mathematical equations renders the ’024 Patent invalid. *See* Ex. F (Meta’s 12-05-22
 15 Second Amended Invalidity Contentions, Ex. C-13). Exhibit F illustrate how this reference is relevant
 16 to a PTO Examiner’s assessment of patentability.

17 **Specific Intent:** Mr. Foxlin co-authored the undisclosed FlightTracker paper confirming that
 18 Mr. Foxlin was aware of and knew the contents of the withheld information. *See Sanders*, 2011 WL
 19 1491248, at *4 (failure to disclose publications to the PTO which the patent owner co-authored is
 20 relevant to inequitable conduct); *see also Regeneron Pharm.*, 864 F.3d at 13510, 1353. Like the other
 21 four Asserted Patents, Mr. Foxlin once again during the prosecution of the ’024 Patent failed to
 22 disclose his own material prior art. On information and belief, Mr. Foxlin has made a practice of
 23 withholding relevant and material prior art to the PTO during prosecution of his patent applications so
 24 as to secure a patent on information already available publicly. *See, e.g., id.* at 1351 (“An inference of
 25 intent to deceive is appropriate where the applicant engages in “a pattern of lack of candor.”). Here,
 26 Mr. Foxlin at least failed to disclose FlightTracker during prosecution of the ’024 Patent. Therefore,
 27 the single most reasonable inference here is that Mr. Foxlin was aware of this reference but
 28 intentionally chose to withhold it during the prosecution of the ’024 Patent with deceptive intent

1 As a result of the actions described above, all claims of the '068, '648, '632, '253, and '024
2 Patents are unenforceable due to inequitable conduct committed by Mr. Foxlin in connection with
3 prosecution of each of these Patents.

4 **RESERVATION OF RIGHTS**

5 Defendants hereby reserve the right to amend their Answer and reserve all defenses set out in
6 Rule 8(c) of the Federal Rules of Civil Procedure, the Patent Laws of the United States, and any other
7 defenses, at law or in equity, which become applicable after the substantial completion of discovery
8 or otherwise in the course of litigation.

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1 Dated: March 2, 2023

Respectfully submitted,

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